

the South American continent about where there is now the Amazonas valley, we should still have a communication between both oceans within the tropics. Just this kind of connection is demanded by the facts that have led to the assumption of an interruption of the isthmus of Panama.

The former connection of v. Ihering's Archiplata with a supposed Antarctic continent is no new theory, but goes back, in this form, as far as Rüttimeyer (1867), and I have no doubt that we should accept it.* But we hardly can accept it in the shape of Forbes' 'Antarctica' (1893). This huge continental mass is simply impossible, and Professör Osborn (SCIENCE, April 13, 1900) has very properly tried to restrict it to a reasonable size; but I think we should still more contract its boundaries. In this respect I should follow Hedley's† views, who practically, but without giving a map, accepts the limits of the present Antarctic continent (as defined by Enderby, Wilke's, Victoria and Graham Land), with only such extensions as are absolutely necessary to connect it with the present southern continents.

A. E. ORTMANN.

PRINCETON UNIVERSITY,
Dec. 7, 1900.

THE LONGEST AERIAL VOYAGE.

TO THE EDITOR OF SCIENCE: The official report just received of the long-distance balloon race from Paris on October 9th, changes somewhat the figures on page 799 of SCIENCE, which were those furnished to the press. It appears now that Count de La Vaulx and a companion traveled 1,200 miles in 35 hours and 45 minutes in the basket of a balloon containing only 57,000 cubic feet of illuminating gas. They reached a maximum height of three and a half miles, crossed Germany and landed in Russia, as did another of the contestants. This is probably the longest continuous voyage in the air ever made, although it was nearly equaled forty years ago by our

* An historical account of the different theories advanced for the explanation of the relations of the southern faunas, and a classification of them, will shortly be published in the *American Naturalist*.

† Proc. Roy. Soc. N. S. Wales, 1895, August 7th.

countryman, John Wise, who, with two companions, went by balloon in 19 hours from St. Louis to Jefferson County, New York, a distance of 1,150 miles.

It is evident that, under the management of an aëronaut, a balloon can be kept longer in the air than an unmanned balloon, but, nevertheless, a balloon of 8,700 cubic feet capacity, carrying only self-recording instruments, which was liberated from Berlin in 1894, after attaining a height of ten miles was carried 700 miles to the borders of Bosnia, at a speed of 62 miles an hour. Still more remarkable, in its way, was the flight of a pair of kites last summer from the Royal Aëronautical Observatory near Berlin. Five kites, which had lifted self-recording meteorological instruments to a height of two and a half miles, broke the wire that confined them to the ground and the two upper kites dragged it across the country for nearly a hundred miles before they were finally checked, the trailing wire, two miles in length, furnishing sufficient resistance to keep the kites flying throughout the night.

A. LAWRENCE ROTCH.

BLUE HILL METEOROLOGICAL OBSERVATORY,
November 30, 1900.

'THE CRIMINAL, HIS PERSONNEL AND ENVIRONMENT.'

TO THE EDITOR OF SCIENCE: Disclaiming in any sense to answer the attack upon my recently published book, 'The Criminal, his Personnel and Environment,' emanating from the pen of Mr. Havelock Ellis and published in your valued journal of the 19th inst., I nevertheless deem it but justice to myself to ask of my critic a verification of the assertion therein made, that: "When he (the author) mentions authorities he is unable in a *large proportion of cases* even to *spell their names*" (the italics and parentheses are my own). Now, as I happen to cite a very large number of names, and while fully conscious of my liability to err, the charge is an exceedingly broad, if not hazardous one, which, if failing to substantiate, will lay my critic open to a grave counter-charge. I respectfully challenge Mr. Ellis to make good his proofs, which, if true, may readily be done. In the event of his ina-